

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-12 (Canceled).

Claim 13 (Currently Amended): A biochip comprising:

a plurality of useful molecular recognition areas distributed with a determined layout to create a format of molecular recognition areas;

means for making optical position marks for each molecular recognition area, distributed with a determined layout to form an optical format, wherein the molecular recognition areas are arranged on the optical format and the format of recognition areas are two formats produced independently of each other according to a known relative positioning; and

means for determining said known relative position positioning constituted by molecular recognition areas configured to receive specific biological targets arranged at specific and predefined locations of the biochip with respect to the useful molecular recognition areas, said specific biological targets to obtain fluorescent patterns of the two formats provided on the biochip.

Claim 14 (Canceled).

Claim 15 (Currently Amended): A biochip according to claim 13, wherein the ~~optical marking means~~ for making optical position marks includes a sequence of engraved areas and non-engraved areas.

Claim 16 (Previously Presented): A biochip according to claim 15, wherein the engraved areas and non-engraved areas form a checker board.

Claim 17 (Currently Amended): A biochip according to claim 16, wherein [[the]] areas of the checker board are oblique with respect to the molecular recognition areas.

Claim 18 (Currently Amended): A biochip according to claim 15, wherein [[the]] a surface area of each recognition area is greater than [[the]] a surface area of an engraved area or a non-engraved area of the optical format.

Claim 19 (Canceled).

Claim 20 (Currently Amended): A biochip according to claim [[19]] 13, further comprising a layer or a stack of thin layers, facilitating reflection of an optical format tracking beam, arranged between the optical format and the molecular recognition areas.

Claim 21 (Previously Presented): A device for reading a biochip defined in claim 13, comprising:

a first optical head configured to project first incident light onto the biochip;

first means for scanning the biochip by the first incident light;

a second optical head configured to project second incident light onto the biochip;

second means for scanning the biochip by the second incident light;

a first optical system associated with an optical head to project first light originating from the biochip and related to the first incident light onto a first optoelectronic sensor,

demonstrating presence or absence of target molecules on each molecular recognition area,
the first optoelectronic sensor configured to supply signals corresponding to the first light;

a second optical system associated with an optical head to project second light
originating from the optical format of the biochip and related to the second incident light onto
a second optoelectronic sensor, the second optoelectronic sensor configured to supply signals
corresponding to the second light;

first means for recording at least part of the signals corresponding to the first light;

second means for recording at least part of the signals corresponding to the second
light; and

means for processing said signals to adjust the signals corresponding to the first light
and signals corresponding to the second light, on a fictitious biochip as a function of means
for determining relative position of the two formats.

Claim 22 (Previously Presented): A device according to claim 21, wherein the first
and second optical heads are coincident.

Claim 23 (Previously Presented): A device according to claim 21, further comprising
a mechanical system or an autofocus system to maintain the focus of the reading beam on the
surface of the biochip.

Claim 24 (Previously Presented): A device according to claim 23, wherein the
autofocus system includes a piezoelectric actuator and means for slaving the actuator.